WHAT IS CLAIMED IS:

1. An isolated or recombinant polypeptide comprising a sequence which differs in 0 to 16 amino acid positions from a sequence selected from SEQ ID NO:3, SEQ ID NO:12, SEQ ID NO:47, SEQ ID NO:53, SEQ ID NO:1, SEQ ID NO:8, SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:10, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:14, and SEQ ID NO:15, which polypeptide exhibits antiviral activity.

2. The polypeptide of claim 1, comprising a sequence which differs from SEQ ID NO:3 in 0 to 16 amino acid positions.

3. The polypeptide of claim 2, comprising a sequence which differs from SEQ ID NO:3 in 0 to 8 amino acid positions.

4. The polypeptide of claim 1, comprising a sequence which differs from SEQ ID NO:12 in 0 to 16 amino acid positions.

5. The polypeptide of claim 4, comprising a sequence which differs from SEQ ID NO:12 in 0 to 8 amino acid positions.

6. The polypeptide of claim 1, wherein the antiviral activity of the polypeptide is equal to or greater than the antiviral activity of huIFN-alpha 2b or huIFN-alpha 2a.

7. The polypeptide of claim 6, wherein the antiviral activity of the polypeptide is at least two-fold greater than the antiviral activity of huIFN-alpha 2b or huIFN-alpha 2a.

8. The polypeptide of claim 1, wherein the polypeptide exhibits a ratio of antiviral activity/antiproliferative activity at least two-fold greater than the ratio of antiviral activity/antiproliferative activity exhibited by huIFN-alpha 2b or huIFN-alpha 2a.

9. The polypeptide of claim 8, wherein the polypeptide exhibits a ratio of antiviral/antiproliferative activity at least four-fold greater than the ratio of antiviral activity/antiproliferative activity exhibited by huIFN-alpha 2b or huIFN-alpha 2a.

10. A conjugate comprising

(a) the polypeptide of claim 1; and

(b) a non-polypeptide moiety covalently attached to an attachment group of the polypeptide.

11. The conjugate of claim 10, comprising at least two non-polypeptide moieties.

12. The conjugate of claim 10, comprising a non-polypeptide moiety covalently attached to a cysteine residue.

13. The conjugate of claim 10, comprising a non-polypeptide moiety covalently attached to a lysine residue or to the N-terminal amino group.

14. The conjugate of claim 10, comprising a non-polypeptide moiety covalently attached to a lysine residue.

15. The conjugate of claim 10, comprising a non-polypeptide moiety attached to the N-terminal amino group.

16. The conjugate of claim 10, comprising a non-polypeptide moiety attached to a lysine residue and a non-polypeptide moiety attached to the N-terminal amino group.

17. The conjugate of claim 10, wherein the non-polypeptide moiety is a polymer.

18. The conjugate of claim 17, wherein the polymer is a polyethylene glycol.

19. The conjugate of claim 10, wherein the non-polypeptide moiety is a sugar.

20. The conjugate of claim 19, wherein the sugar is attached to an N-glycosylation site.

21. A composition comprising the polypeptide of claim 1 and a pharmaceutically acceptable excipient.

22. A composition comprising the conjugate of claim 25 and a pharmaceutically acceptable excipient.

23. An isolated or recombinant nucleic acid comprising a polynucleotide sequence which encodes the polypeptide of claim 1.

24. A host cell comprising the nucleic acid of claim 23.

25. A vector comprising the nucleic acid of claim 23.

26. The vector of claim 25, wherein the vector comprises a plasmid, a cosmid, a phage, a virus, or a fragment of a virus.

27. The vector of claim 26, which is an expression vector comprising the nucleic acid operably linked to a promoter.

28. A host cell comprising the vector of claim 27.

29. A composition comprising the nucleic acid of claim 23 and an excipient.

30. A method for preparing the polypeptide of claim 1, the method comprising:

providing a culture comprising a host cell, the host cell comprising an expression vector comprising a promoter operably linked to a nucleic acid, the nucleic acid comprising a polynucleotide sequence which encodes the polypeptide,

culturing the culture under conditions which permit expression of the polypeptide, and recovering the polypeptide.

31. The method of claim 30, wherein the host cell is a glycosylating host cell or a bacterial host cell.

32. A method for preparing a conjugate, the method comprising

(i) providing the polypeptide of claim 1, and

(ii) attaching at least one non-polypeptide moiety to an attachment group of the polypeptide, wherein the resulting conjugate exhibits antiviral activity.

33. The method of claim 32, wherein the step of providing the polypeptide comprises:

providing a culture comprising a host cell, the host cell comprising an expression vector comprising a promoter operably linked to a nucleic acid, the nucleic acid comprising a polynucleotide sequence which encodes the polypeptide,

culturing the culture under conditions which permit expression of the polypeptide, and recovering the polypeptide.

34. The method of claim 33, wherein the host cell is a glycosylating host cell or a bacterial host cell.

35. A method for inhibiting replication of a virus in cells infected with the virus, the method comprising: administering to the cells an amount of the polypeptide of claim 1 or the conjugate of claim 10 effective to inhibit replication of the virus in the cells, thereby inhibiting replication of the virus in said cells.

36. A method for reducing the number of copies of a virus in cells infected with the virus, the method comprising: administering to the cells an amount of the polypeptide of claim 1 or the conjugate of claim 10 effective to reduce the number of copies of the virus in the cells, thereby reducing the number of copies of the virus in said cells.

37. The polypeptide of claim 1 or the conjugate of claim 10 for use as a medicament.

38. Use of the polypeptide of claim 1 or the conjugate of claim 10 for the manufacture of a medicament for inhibiting replication of a virus in cells infected with the virus.

39. Use of the polypeptide of claim 1 or the conjugate of claim 10 for the manufacture of a medicament for reducing the number of copies of a virus in cells infected with the virus.

40. Use according to any of claims 37-40, wherein the virus is HCV or HBV.